

## INTERNATIONAL SEARCH REPORT

PCT/GB2004/004375

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 F16L33/01 F16L33/22 F16L27/08

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 776 996 A (CAMERON J ET AL) 4 December 1973 (1973-12-04)	1,2,
Y	column 1, line 47 - line 63 column 3, line 1 - column 4, line 20 figures 1,4	5-10,12 4,11,14
X	DE 295 06 835 U (FRIEDHELM RAMSPOTT METALL UND) 13 July 1995 (1995-07-13)	1-3,5-9,
Y	page 8, line 35 - page 9, line 15 page 14, line 6 - line 32 figures 8,9	13 4,11,14

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search  14 January 2005	Date of mailing of the International search report  24/01/2005
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Mauriès, L

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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 3776996	A 04-12-1973	AU	464183 B2	21-08-1975
		AU	3218271 A	15-02-1973
		DE	2140311 A1	17-02-1972
		GB	1351284 A	24-04-1974
DE 29506835	U 13-07-1995	DE	4430114 A1	01-02-1996
		DE	29506835 U1	13-07-1995